The Kentucky Laboratory Sentinel

July 2004

EPI TRACKS

Both the National Molecular Subtyping Network for Foodborne Disease Surveillance (PulseNet) as well as the National Antimicrobial Resistance Monitoring System (NARMS) play critical roles in the tracking of foodborne outbreaks (PulseNet) and identifying patterns of emerging resistance (NARMS). But for either of these networks to be effective it is essential to enlist the help of doctors, hospital labs and health departments to submit their *Escherichia coli* O157, *Escherichia coli* shiga toxin positive, Salmonella, Shigella and Listeria isolates for confirmation and additional testing. It is important to send these isolates to the Kentucky Public Health Laboratory as soon as possible to help aid in epidemiological investigations of outbreaks across the state and nation.

PulseNet is the Center for Disease Control's(CDC) network of public health laboratories that perform a DNA "fingerprinting" method, pulsed-field gel electrophoresis (PFGE) on foodborne bacteria. PFGE data is not used for individual patient diagnostic purposes but rather in conjunction with clinical, microbiological and epidemiologic information as an investigational tool. The data provided by the PulseNet network allows for rapid comparison of the fingerprint patterns through an electronic database. This then allows for rapid recognition and timely investigation of an outbreak, thus reducing the severity and extent of a particular outbreak. PulseNet participants include all fifty public health labs, as well as seven Federal Drug Administration(FDA) labs, and the United States Department of Agriculture's(USDA) Food Safety Inspection Service laboratory.

NARMS works in collaboration with the CDC, FDA, and the USDA. The purpose is to provide information about patterns of emerging antibiotic resistance in foodborne pathogens such as *Escherichia coli*, Salmonella, Shigella and Listeria. This data can then be used to assist in outbreak investigations. Also, because anti-microbial use in food-producing animals may result in antimicrobial resistant pathogen transmission to humans via the food supply, this data can be used to develop public health regulatory policy for antimicrobial use in these animals. Fifty state and four local public health labs currently participate in NARMS.

The success of both of these programs, PulseNet and NARMS, rely heavily on a partnership between doctors and hospitals, the Public Health Lab, epidemiology and the CDC. To work effectively it is critical to receive all *Escherichia coli* O157, *Escherichia coil* shiga toxin positive, Listeria, Salmonella and Shigella isolates in a timely manner especially when tracing an outbreak. If the lines of communication are open and participation is high it can lead to a safer food supply, a healthier public and a system that works.

Information for this article was taken from the CDC websites: www.cdc.gov/pulsenet *and* www.cdc.gov/narms

We Want YOU!

34 out of 59 responded YES to participating in the CAP 2005 Laboratory Preparedness Survey.

If you have not joined our team and said YES, you have until July 28th to respond.

Email: leighann.bates@ky.gov

or

Fax: 502-564-7019

We will only be ordering the survey for those labs that have responded through email, fax, or the simulated exercise.

LAST CHANCE

Yummy Picnic Dessert

16oz whipped topping
1/2 cup of confectioner's sugar
8oz cream cheese
1 torn up angel food cake
Strawberry glaze
Fresh strawberries

Let whipped topping and cream cheese come to room temperature.

Beat whipped topping, cream cheese and confectioner's sugar until mixed. Stir in angel food cake. Smooth into 13 x 9 pan.

Cut up strawberries and mix with glaze. Spread on top of cake mixture. Chill. Enjoy!

Comments or suggestions for future communications, email leighann.bates@ky.gov